Shadow Matte

The *Shadow Matte* is a specific shader, used typically on floor planes to ‘catch’ shadows from lighting within the scene. It is useful for integrating a rendered object onto a photographic background. You can create a custom shadow pass with this shader. You can also render out shadows separately for use in a compositing package. For example, you may want to change the shadow density or color of the shadow to match some live action footage.

- **Background**
- **Shadows**
- **Diffuse**
- **Specular**
- **Lights**
- **AOVs**
Background

Can be set to either `scene_background` (default) or `background_color`, which allows connecting a specific texture in the `background_color` parameter slot.

Shadows

Shadow Color

The color of the shadow. You can use it to ‘tint’ the color of the shadows to match a photographic back plate.
Shadow Opacity

Determines how ‘opaque’ or dark the shadow appears. Higher values will produce a lighter shadow. The captured shadow is visible in the alpha channel. If you have a very hilly or bumpy ground, you may need to increase the Transparency Depth in the Render Settings.

Backlighting

When enabled, it takes into account the backlighting illumination. Backlighting provides the effect of a translucent object being lit from behind (the shading point is ‘lit’ by the specified fraction of the light hitting the reverse of the object at that point). It is recommended that this only be used with thin objects (single sided geometry) as objects with thickness may render incorrectly.
**Alpha Mask**

Controls whether the alpha should be opaque or contain the shadow mask.

**Diffuse**

**Diffuse color**

The color used to determine the overall indirect diffuse contribution in the scene.
Diffuse Color: Red

**Diffuse Intensity**

The amount of diffuse contribution.

**Use Background**

If enabled, the background color is used to determine the overall indirect diffuse contribution in the scene. Otherwise, the color defined in the *Diffuse* color is used.
Enabled (default). Background color used.  
Disabled. Red indirect diffuse color visible on floor.

**Indirect Diffuse**

Switch for enabling/disabling capture of the indirect diffuse light.

**Specular**

**Indirect Specular**

Switch for enabling/disabling capture of the indirect specular light.
Specular Color

The color the specular reflection will be modulated with.

Specular Intensity

The specular weight. Influences the brightness of the specular highlight.
Specular Roughness

Controls the glossiness of the specular reflections. The lower the value, the sharper the reflection.

Specular IOR

The IOR parameter (Index of Refraction) defines the material's Fresnel reflectivity and is by default the angular function used. Effectively the IOR will define the balance between reflections on surfaces facing the viewer and on surface edges. You can see the reflection intensity remains unchanged, but the reflection intensity on the front side changes a lot.
Lights

Light Group

Per light group shadow mattes. More information about light groups can be found here.

AOVs

A list of available AOVs available for the Shadow Matte shader. Each option creates a separate AOV render pass for that component. Note that the AOV must also be enabled in the Render Settings window.

Shadow

Direct light shadow AOV.

Shadow Diff
A difference AOV which can be used to eliminate the shadow from the direct component.

**Shadow Mask**

This AOV can be used in comp to localize and tweak the shadow.

**Offscreen Color**

There may be areas visible in the specular reflections which are outside of the background plate; so called offscreen areas. This parameter defines the color used for these offscreen areas; you can link a texture for instance.
Skydome Light Sampling

The *Shadow Matte* shader requires more than 1 sample to avoid noisy shadows. This is because it is computing a ratio of shadowed/unshadowed lighting, and to get a good estimate of that it requires multiple samples.